

UTILIZATION OF IT AND THE EFFECT ON INDIVIDUAL PERFORMANCE OF LECTURERS AT STATE POLYTECHNIC SRIWIJAYA

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ABSTRACT

Recently, the use of personal computers has widespread worldwide, both college and non among college. In the entire universities, using personal computers has been practiced optimally by the lecturers in order to provide a positive impact on their individual performance. This study is aimed at examining and analyzing the utilization factors of information technology and its influence towards the performance of lecturers in terms of utilizing their personal computer (PC). The factors being analyzed were social factors, affective (feelings of the individual), complexity, job appropriateness, long-term consequences, and facilitating conditions. The research sample consists of 79 lecturers in the State Polytechnic of Sriwijaya. These data were collected and used to predict the factors of utilization of information technology on the lecturers' performance. It was found out that there was a negative relationship and not significant for social factors, affective (feelings of the individual), complexity, and job appropriateness, whereas long-term consequences and utilizations of IT. The facilitating conditions were found to have a positive and significant relationship towards the performance of the individual performance.

Key words: *utilization factors of information technology, the performance of individual faculty.*

PEMANFAATAN TI DAN PENGARUHNYA TERHADAP KINERJA INDIVIDUAL DOSEN POLITEKNIK NEGERI SRIWIJAYA

ABSTRAK

Akhir-akhir ini, pemanfaatan komputer telah terjadi di seluruh dunia, baik di perguruan tinggi maupun lembaga lain bukan perguruan tinggi. Di dalam perguruan tinggi, mereka juga telah banyak menggunakan komputer secara optimal oleh dosen dengan tujuan memberi pengaruh kinerja mereka. Penelitian ini ditujukan untuk menguji dan menganalisis faktor-faktor terjadinya pemanfaatan komputer dan pengaruhnya terhadap kinerja dosen dalam menggunakan komputer (PC) mereka. Faktor-faktor yang dianalisis adalah faktor sosial, afektif (perasaan individu), kompleksitas, kesesuaian dengan pekerjaan/tugas, konsekuensi jangka panjang, dan kondisi yang mendukung. Sampel penelitian terdiri atas 79 dosen di Politeknik Negeri Sriwijaya. Datanya dikumpulkan dan digunakan untuk memprediksi faktor-faktor yang mendorong adanya pemanfaatan teknologi informasi (IT) dan pengaruhnya terhadap kinerja dosen. Hasilnya menunjukkan bahwa, ada hubungan negatif dan tidak signifikan antara faktor sosial, afektif, kompleksitas, dan kesesuaian tugas. Namun, ditemukan hubungan positif dan signifikan antara kondisi yang mendukung dengan kinerja dosen.

Kata Kunci: *pemanfaatan IT, kinerja dosen (individu).*

INTRODUCTION

During the fast development of technology, information technology (IT) is increasingly required by an organization, especially by those that desire to grow and be competitive with other organizations. The application of IT can affect the performance of both companies on one particular or on all employees in the organization. When the IT implementation is considered complied with their jobs, it is assumed to have a positive impact on an organization. As noted such organizations can be education like universities both public and private universities. In that case, they are also trying to take advantage of IT so that they can compete with others.

In connection with such endeavor, it is apparent that the role of information and communication technology (ICT) in education is crucial. In terms of supporting the process of teaching and learning and efficiency of academic and administrative work, ICT is a must in its implementation. They are supposed to apply properly the ICT in supporting a variety of activities. Penetration and implementation of ICT in higher education can provide a very positive impact on the education process. It is expected to provide high efficiency and productivity in academic and administrative. In addition, the implementation and adaptation of ICT is also expected that the college can continue to compete in the competitive arena of education in national and even international level.

In making precise decision, information system developers need to have a better understanding of the factors that influence the utilization of IT. Thomson et al. (1991) adopted most of the theory proposed by Triandis (1980). They states that the use of personal computers by a user is influenced by social factors which make use of workplace computers, affective factors (individual feelings) toward the use of personal computers, the complexity factor, appropriateness with the task of IT for individuals, the expected long-term consequences of the use of individual computers, and conditions which is

conductive to facilitate the use of personal computers.

Using the model above, the previous researchers also analyzed the factors affecting the utilization of IT such as the study by Thomson et al. (1991). It was found that there was positive and significant relationship between social norms, the suitability of the task, long-term consequences of the use of IT, whereas affective factor was found to have a positive but no significant effect on the utilization of IT. The complexity factor was found to have a negative and significant relationship towards the use of IT. In addition, IT was proved to have a weak and negative relationship towards the conditions that facilitate the utilization of IT.

Another research by Tjhai (2003) in Public Accounting Firm was done on the Big Five companies in Indonesia. It indicates that social factors and the affective are consistent with the results of Thompson et al. (1991). Conversely, other factors are not consistent with Thompson et al. (1991), the complexity and appropriateness of the task have negative relationship, and no significant effect on the utilization of IT. In addition, a long-term consequence has significant and negative effect on the utilization of IT, but the conditions that facilitate is consistent with the results of Thomson et al.

In the same study by Tjhai (2003) also by Ahmad (2004) were conducted in Manufacturing Companies in South Kalimantan. From the research Achmad (2004) obtained the social factors, individual feelings, and the suitability of the task, long-term consequence, and facilitating condition have a positive and significant impact on IT utilization. A complexity factor has a significant and negative effect on the utilization of IT. Astuti et al (2008) also conducted a study with the same object at the tax office in West Denpasar. Simultaneously, social factors, affective, task appropriateness, long-term consequence, and facilitating conditions have a significant effect on the utilization of IT. Complexity was positively associated with the use of IT, but did not signifi-

cantly influence the use of IT. Similar results were also obtained by the Anak Agung et al (2008) with an object that is at RB in Tabanan. Research with the same object, namely lecturers, was also conducted by Rakhmi (2007). The study found that teachers perceive the use of IT in private universities in Indonesia had significantly positive effect on their performance. Yet, for most teachers were not influenced by the six factors being analyzed, while others perceive the use of IT is influenced by social factors, affective, and facilitating conditions.

The trust on Information system (IS) need to be investigated because it is required by management in evaluating the performance of individuals to ensure that the new computer-based system can be used to control the performance. The success of an enterprise IS system depends on the way of using, the system's convenience for the users, and use of the technology (Goodhue, 1995).

This study was conducted in Sriwijaya Polytechnic that is an institution engaged in education founded in 1982. Until now the Polytechnic of Sriwijaya (POLSRI, 2010) has 10 majors or departments and 13 courses by with totally 4084 students. Power 368 is the number of lecturers. To improve the quality of the education at POLSRI, IT is implemented in everyday activities. This study investigated the influence of social factors, affective, the appropriateness of the task, long-term consequence, facilitating conditions in the use of IT, and complexity on the performance of individual teachers in using personal computers (PCs). Questionnaires were distributed concerning the factors to get the data about IT and its effect on individual performance so that it can be also used for improving the performance of individuals in POLSRI.

THEORETICAL FRAMEWORK AND HYPOTHESIS

Information Technology

Technology is a means to boost any process and this can be adopted based on the results

of the adoption and utilization of various disciplines of knowledge that produces value for the fulfillment of needs, survival, and improving the quality of human life (Law Decree NO 18 of 2002). According to O'Brien (2006) an IT can be a computer network consisting of various components of information processing that uses various types of hardware, software, data management, and IT network. In this case, information is processed and its results as the data are considered useful data.

For example, Anol (2009) conducted a study on the adaptation of IT in which data were collected through a user's web portal of MyYahoo. It showed that the determinants of the usefulness of behavioral adaptation are adaptation usefulness, ease of adaptability and adaptation of IT.

Utilization of IT

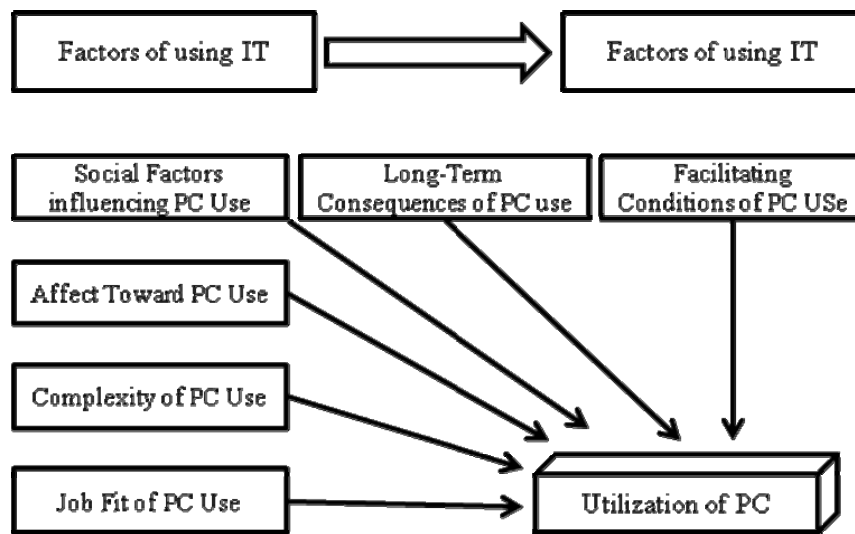
The Utilization of IT according to Thompson et al. (1991; 1994) is a benefit that is expected by the users of information systems in performing their duties or conduct in using the technology at the time of doing the job. Measurement is based on the intensity of use, frequency of use, and the number of applications or software used. Appropriate use of IT which is backed by the expertise of personnel can improve both the company performance and individual performance

Thomson et al. (1991), adopted some of the theory proposed by Triandis (1980), stated that factors affecting the application of IT include social factors, affective, complexity, job appropriateness, long-term consequence, and facilitating condition for using IT as shown in Figure 1.

Social Factors and Individual Performance

In connection with social factors, Triandis in Ahmad (2004) states that behavior is influenced by social factors that can be received by someone and then be reflected in the way of thinking. He further defines by referring it to social factors that individuals internalize through the process. It is based on the rules

Figure 1
Factors Affecting the Utilization of Personal Computers



Sources: Thompson et al. (1991)

of the subjective culture of the group and specific interpersonal agreements that have been stipulated by their leaders with other individuals in certain social situations. Culture consists of subjective norms (the awareness to take action that is considered true in a particular community), a role model, and values (abstract category with elements of strong feelings).

Empirically, the relationship between social norms and behavior can be found in various studies. For example, Thompson et al. (1991) describes the magnitude of social factors in the form of a co-worker support, senior managers, organization, organization, and superior. On the contrary, Davis et al. (1989) reported no significant association between social norms and the use of IT (behavior), their findings were classified as weak psychometric properties in a measure of social norms. However, unlike Davis et al., Rakhmi (2007) found that social factors in the form of support from their coworkers and superiors will affect the utilization of IT and it even has a positive effect on the individual performance. This is also supported by Tjhai (2002), Ahmad (2004), Astuti (2008), and the Children's Court (2008). Based on the description above the hypothe-

sis can be asserted as the following.

H1: There is a positive and significant relationship between social factors and individual performance at POLSRI.

Affective (Individual Feelings) and Individual Performance

Attitude is an evaluative response which means that the form of reaction is expressed as the emergence of this attitude, based on the evaluation process within the individual that gives the conclusion of the stimulus in the form of the good-bad, positive-negative, pleasant-unpleasant, which is later crystallized as a potential reaction to the a certain object. Thus, both attitudes and behavior are two dimensions within the individual who stands alone, apart, and different in terms of stance. This means that it cannot predict the behavior of (Anwar, 1997). Triandis in Ahmad (2004) defines attitude as an idea that is driven by feelings and actions that affect the social situation. In his research, Triandis (1980) expressed the need for cognitive element that is different or affecting an attitude. The term "affective" refers to the feelings of love, joy, happiness, sadness, unhappiness or hatred arising from a particular action.

According to Godhue (1988), most researchers in the information system does not distinguish between affective (feeling like or dislike) and cognitive (beliefs). Thus, inferences related to individual behavior are not easy and can even be misleading if taken from other forms of behavior that seem just. Thompson et al. (1991) used 212 respondents consisting of multi-national manufacturing company managers. It was found that it did not find evidence to support the hypothesis stating that affective influences the use of IT.

Yet, Tjhai (2002) and Compeau et al. (1999) used 392 end-users over the past year, found a significant relationship between feelings and the use of computers. Rakhmi (2007) with teachers as the respondents found that feelings influence the use of IT and has positive effect on leacturers' performance. This is also supported by research conducted by Ahmad (2004), Astuti (2008), and the Children's Court (2008). Based on the description above hypothesis can be constructed as follows.

H2: There is a positive and significant relationship between feelings and the performance of individual at POLSRI.

Complexity and Individual Performance

Complexity is defined as the relatively perceived degree in which innovation is difficult to understand and use. Tornatzky and Klein in Ahmad (2004) found empirical evidence that the more complex the innovation, the lower the level of adoption. The utilization of IT can be viewed in the context of the adoption of innovations. It showed a negative relationship between complexity and utilization of IT. Davis et al. (1989) propose a model that includes IT acceptance construct termed and perceived-ease of use. They found a positive relationship between perceived ease of use and intense behavior.

Rakhmi (2007) found that increase of innovation in a technology has a negative impact on the use of IT. Thus, the lecturers' performance declines. Similarly, Tjhai (2002) and Ahmad (2004) found the same

evidence. But, they did not apply the strategy of research conducted by Astuti (2008) and Anak Agung (2008) who found a positive effect of the complexity towards the use of IT. Based on the description above, hypothesis can be constructed as the following. H3: There is a negative relationship and not significant between complexity and performance of individuals at POLSRI.

Job Appropriateness and Individual Performance

It was stated by Thompson et al. (1991) that for short-term activities related to IT capabilities can be used to enhance a person's job performance. This element is termed the perceived-size of the job appropriateness with the person's belief in the ability of IT to improve their job performance. This is supported by the results of studies showing a positive relationship between the suitability of the task with the use of IT. This is supported by Tornatzky and Klein in Ahmad (2004) who found that the use of an innovation opportunity is quite so varied when the innovation is in line with individual work areas. This factor is also similar to Davis et al. (1989) that stating that perceived-benefits are closely correlated with the use of information systems.

Additional evidence presented by Goodhue (1988), predicting the use of information systems is the correspondence work tasks with the ability of information systems to support these tasks. Rakhmi (2007)) found a negative effect on the suitability of the task of utilization of IT. The opposite was found by Tjhai (2002), Ahmad (2004), Astuti (2008), and the Children's Court (2008) who suggested that the suitability of the task or job appropriateness has a positive effect on the use of IT. Based on the description above hypothesis can be constructed are as follows.

H4: There is positive and significant relationship between the suitability and performance of individual tasks of POLSRI lecturers.

Long-Term Consequence and Individual Performance

Long-term consequence of use is measured by the output whether to have benefit in the future or not, such as increased flexibility in changing jobs or increase the opportunities for better jobs. This is the promising future, such as increased flexibility to change jobs or increase opportunities for more meaningful work. For some individuals, motivation to adopt and use IT may be related to the planning for the future rather than current needs.

Davis et al. (1989) compare the model based on TRA (Theory of Reasoned Action) and TAM (Technology Acceptance Model) and found the combined results of both models even though support for the use of perceptual variables and perceived ease of use, and has a positive relationship with willingness to use the system. Again, Rakhmi (2007) conducted a research on the private universities' professors found that the consequence of long-term has a negative effect on the utilization of IT. Based on the description above hypothesis can be constructed are as follows.

H5: There is a positive and significant relationship between long-term consequences and individual performance at POLSRI.

Facilitating conditions

It is stated by Triandis in Ahmad (2004) that the behavior does not appear when there are barriers to the objective situation. Triandis also defines the conditions that facilitate the objective factors supports the course of an action. In relation to the use of IT, motivation for using IT is an induction that may affect the utilization of the system. Conditions that facilitate a way to eliminate or reduce the barriers exist within the individuals to train users and assist them when faced with problems. Schultz and Slevin in Tjhai (2002) stated that the technical support to ease the existing facilities as one of the factors may affect the utilization of IT. The same is evidenced by Tjhai (2002), Ahmad (2004, Rakhmi (2007), Astuti (2008), and

the Children's Court (2008).

Based on the description above hypothesis can be constructed are as follows.

H6: There is a significant and positive relationship between facilitating conditions and performance of individuals at POLSRI.

Individual Performance

Cecilia (2006) argued individual performance is governed by the standards or criteria established by an organization. In this context, high individual performance can improve overall organizational performance. Research Goodhue and Thompson (1995) states that the achievement of individual performance is related to the achievement of a series of individual tasks. Higher performance implies an increase in efficiency, effectiveness, or higher quality than the completion of a series of tasks assigned to individuals within the company or organization.

RESEARCH METHOD

Scope of Research

This research was conducted at the Polytechnic of Palembang Sriwijaya (POLSRI). Choosing this place is that this polytechnics is one of the country's educational institutions having D3(three-year study program), which has 10 departments and 13 study programs, which is a relatively large number of the department, in connection with the problem. Each department has the authority and responsibility with a different answer. The research object is the entire faculty members (lecturers) of POLSRI.

Population and Sample

This study population is all POLSRI's lecturers who are still active, 368 lecturers. Therefore, the sample may represent the population, for the first phase of the sample in this study using a formula determined by Slovin (Husein Umar, 2001) is as follows.

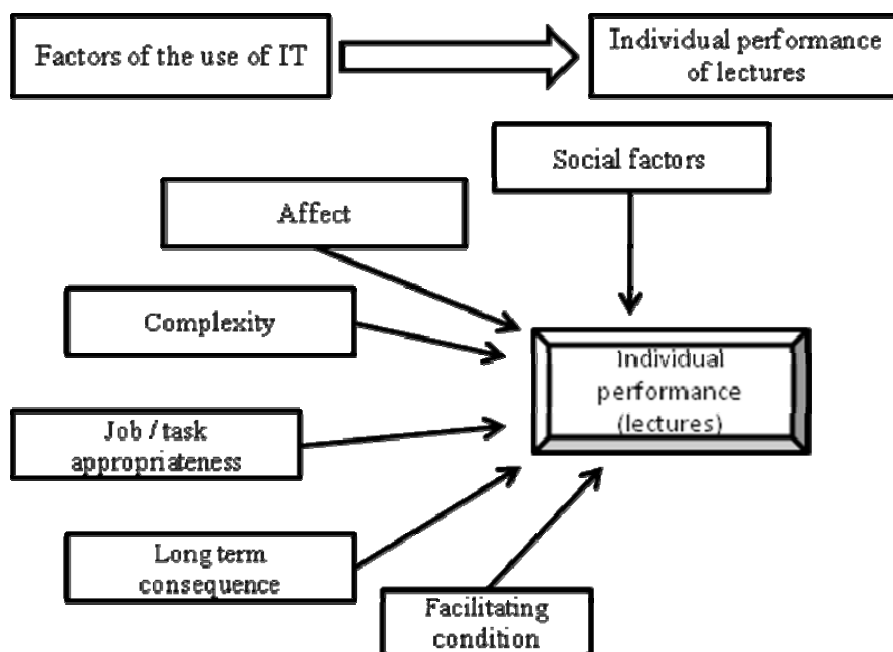
$$n = \frac{N}{(1 + N \cdot e^2)} \quad (1)$$

Description:

N = Number of Population

n = Number of Sample

Figure 2
Research Model



e = the percentage of inaccuracy allowances (precision) due to sampling error which is still tolerable.

Using 10% level of precision, the sample size of this study include the second phase of dividing the sample into an existing department and the sampling technique used is Proportional Random Sampling.

Research Model

The research model used in this study is as shown in Figure 2.

DATA ANALYSIS AND DISCUSSION

An analytical technique used in this study is a descriptive analysis and causal analysis. Descriptive analysis in this study is used to answer the problem by description about the factors related to the problem. This descriptive analysis would support a causal analysis relating to the performance of teachers by looking at factors of utilization of IT. Thus, there is a description of performance (Y) so that the variables that affect the performance of lecturers can be found. The effect of independent variable (use of IT) against the dependent variable (performance of lecturer) is analyzed by causal analysis. The model

used in causal analysis is multiple regression models with SPSS 15.0 for measuring the effect of independent variables of social factors, individual feelings (affective), complexity, appropriateness of job, long-term consequence, and facilitating conditions for the dependent variable is the performance of individuals (lecturers).

Regression model is as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e, \quad (2)$$

where:

- Y = the lecturers' performance
- a = constant
- $\beta_1 \dots \beta_6$ = coefficient of correlation
- X_1 = social factors
- X_2 = affective (feelings of individual)
- X_3 = the complexity
- X_4 = job or task appropriateness
- X_5 = long-term consequence
- X_6 = the facilitating conditions
- e = confounding variable

Test of Validity

A valid indicator is an indicator that has a small level of measurement error. To calculate the validity of a questionnaire, a correlation technique is used. The test the validity

Table 1
Results of Validity Test of Social Factors

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X _{1.1}	21.4444	8.487	.416	.756
X _{1.2}	21.1481	8.823	.567	.734
X _{1.3}	21.8148	6.618	.724	.668
X _{1.4}	21.7037	5.986	.841	.625
X _{1.5}	21.5185	8.490	.424	.754
X _{1.6}	21.8148	9.003	.211	.812

Source: Processed result of data, 2010.

Table 2
Results of Validity Test of Affect

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X _{2.1}	19.9259	5.302	.723	.679
X _{2.2}	19.6667	6.308	.446	.752
X _{2.3}	20.0370	4.575	.684	.686
X _{2.4}	20.1481	5.977	.483	.744
X _{2.5}	20.0370	6.806	.430	.758
X _{2.6}	20.3704	6.396	.366	.772

Source: Processed result of data, 2010.

Table 3
Results of Validity Test of Complexity

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X _{3.1}	13.3704	9.704	.565	.692
X _{3.2}	13.7407	11.661	.339	.741
X _{3.3}	13.5185	10.875	.518	.710
X _{3.4}	13.2963	10.447	.472	.715
X _{3.5}	13.0000	9.154	.452	.732
X _{3.6}	13.4815	10.259	.584	.693
X _{3.7}	13.1481	10.977	.380	.734

Source: Processed result of data, 2010.

is done by calculating the correlation between the score by means of SPSS. Test of validity is done for each item questions used in the variable.

Reliability Test

Empirically, the level of reliability is demonstrated by the score of coefficient of reliability. The higher the coefficient for the

reliability is, the more reliable it is. This is done after certain instrument validity. Reliability is analyzed using SPSS by looking at the value of coefficient alpha or Cronbach Alpha.

Classical Test of Assumptions

Before the analyzed data is tested whether the violation of basic assumptions has been

determined, a classical assumption test is done to see the relationship among the variables and see the validity and reliability of the multicollinearity test, normality test, and heterocedastisity test. The parameter has been estimated by one method and is tested to see if the statistical hypothesis can be accepted or rejected.

Hypothesis Testing

To test this hypothesis, ANOVA is em-

ployed to compare the variance among the groups which is known as the mean of squares among the groups with the variance within the group (mean of squares within groups). The results of this comparison (F count) is later on tested to determine the significance of the acceptance or rejection of the hypothesis. Significance of the influence of all independent variables simultaneously on the dependent variable was tested using F test If the calculated F is higher than F_{table}

Table 4
Results of Validity Test of Job/Task Appropriateness

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X _{4.1}	12.2963	2.909	.646	.718
X _{4.2}	12.2963	3.140	.611	.739
X _{4.3}	12.5926	2.635	.553	.782
X _{4.4}	12.2593	3.046	.635	.727

Source: Processed result of data, 2010.

Table 5
Results of Validity Test of Long-term Consequence

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X _{5.1}	22.7308	6.445	.753	.795
X _{5.2}	22.6154	6.806	.655	.812
X _{5.3}	22.4615	7.458	.668	.816
X _{5.4}	23.1154	6.026	.738	.797
X _{5.5}	22.9615	7.478	.512	.833
X _{5.6}	22.9231	7.754	.429	.844
X _{5.7}	22.8846	7.466	.465	.840

Source: Processed result of data, 2010.

Table 6
Results of Validity Test of Facilitating Condition

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X _{6.1}	30.4400	26.090	.493	.875
X _{6.2}	31.3600	23.573	.460	.892
X _{6.3}	31.1200	24.193	.606	.866
X _{6.4}	31.2800	25.377	.619	.865
X _{6.5}	30.8000	27.000	.622	.869
X _{6.6}	30.8000	24.417	.801	.851
X _{6.7}	30.9200	23.827	.700	.857
X _{6.8}	30.6800	23.977	.717	.856
X _{6.9}	30.6800	23.727	.807	.849

Source: Processed result of data, 2010.

with a significance value less than 0.05.

After that, all the independent variables can be found whether they significantly influence the dependent variable. Conversely, if F calculated is smaller than F_{table} and significance value is higher than 0.05, meaning the independent variables together do not significantly influence the dependent variable.

To test the significance of each variable, it is bound to use the t test, by comparing the *calculated- t* with t_{table} . If the *calculated- t* is smaller than the t_{table} and significance value is higher than 0.05 then the independent variables do not significantly affect the dependent variable (the independent variable has no effect on the dependent variable). If *calculated- t* is higher than t_{table} and a significance value less than 0.05 then the independent variables significantly influence the dependent variable (the independent variable affects the dependent variable).

To test the validity of social factors (see Table 1), it is done by comparing the results r with r_{table} . The requirement of variables is said valid when the results $r > r_{table}$. r_{table} is a table showing the level of significance of the problem. Tolerance of r_{table} is 5%. In this study, the value of r_{table} is 0.1457.

The test of the validity of *affect* factor (see Table 2) is done by comparing calculated r and r_{table} . The can be valid when calculated $r > r_{table}$. r_{table} is the table showing the significance of the problem being tested. The tolerance of t_{table} is 5 %. In this research, the value of r_{table} is 0.1457. Validity test of *affect* (X_2) is calculated $r > r_{table}$. This shows that calculated r (*corrected item-total correlation*) is for the statement that *affects* (X_2) > 0.1457 , therefore the variable of *affect* is valid and can be used for the research that it is influential factors towards IT utilization and towards POLSRi lecturers' performance.

Test the validity of complexity (X_3) results obtained $r > r_{table}$ (see Table 3). The results of the calculation of r (*corrected item-total correlation*) > 0.1457 , and thus the complexity variables declared valid and

worthy used to study the influence of these factors on the performance of IT utilization by POLSRI lecturers.

To test the validity of the job/ task appropriateness factors (see Table 4) is done by comparing r with r_{table} . The requirement of the variables is said valid if the results $r > r_{table}$. r_{table} is a table showing the level of significance of the problem under study. Tolerance of table r is 5%. In this study, the value of r_{table} is 0.1457. Job/ task appropriateness factors validity (X_4) the result is obtained in which $r > r_{table}$. The results of the calculated r show that r (*corrected item-total correlation*) job/ task appropriateness the statement that (X_4) > 0.1457 , and therefore, the variable of job/ task appropriateness valid. So, it can be used study the influence of the factors IT utilization on the performance of POLSRI lecturers.

To test the validity of the long-term consequence factor (See table 5), it is by comparing the results r with r_{table} . The requirement of variables is said valid if the results $r > r_{table}$. r_{table} is a table showing the level of significance of the problem. Tolerance of r_{table} is 5%. In this study, the value of r_{table} is 0.1457.

The validity test of long-term consequence (see Table 5) is done by comparing the calculated r and r_{table} with the condition when calculated $r > r_{table}$, so it is valid. The tolerance is 5%. In this research, r_{table} is 0.1457. The validity of long-term consequence (X_5) has calculated $r > r_{table}$. The result of calculated r hasil (*corrected item-total correlation*) is for the statement that long-term consequence (X_5) > 0.1457 . Thus, this variable is valid and can be used for the research that it is influential towards IT utilization towards POLSRi lecturers' performance.

To test the validity of the factors that facilitate the conditions is by comparing the results r with r_{table} . It is said valid if the results $r > r_{table}$. r_{table} is a table showing the level of significance of the problem under study. The tolerance of r_{table} is 5%. In this study, the value of r the table is 0.1457. The

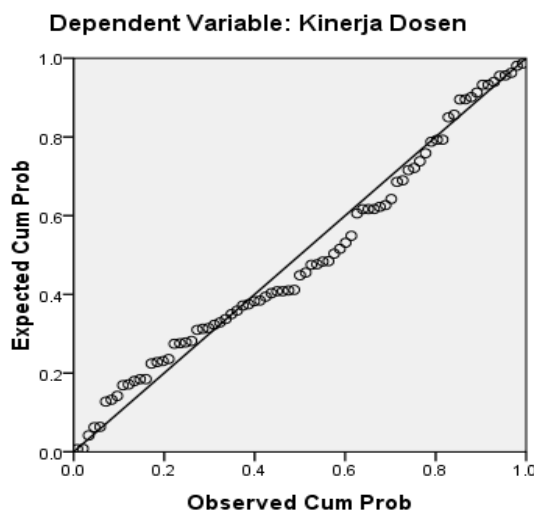
Table 7
Results of Reliability Test

Statements	Alpha	r_{table}
Social factors (X_1)	0.767	0.1457
Affect (X_2)	0.770	0.1457
Complexity (X_3)	0.747	0.1457
Job/task appropriateness (X_4)	0.792	0.1457
Long-term consequence (X_5)	0.842	0.1457
Facilitating condition (X_6)	0.878	0.1457

Source: Processed result of data, 2010.

Figure 3
Graph of Normality Test Result

Normal P-P Plot of Regression Standardized Residual



test of the validity of facilitating condition (X_6) is obtained $r > r_{table}$. The results of the calculated show that r (corrected item-total correlation) can be stated that (X_6) > 0.1457 , and thus facilitating condition is valid and worthy used to study the influence of these factors on the IT utilization of POLSRI lecturers' performance.

Analysis of Reliability Test

The next step is to determine whether the variables used are reliable or not, so it can be done by comparing the alpha obtained for each variable which must be higher than r_{table} , r_{table} s used to test reliability is equal to the value of r_{table} s used in the test of validity, namely 0.147 as seen in Table 7.

In Table 7, it shows that the alpha for each independent variable r is higher than the r_{table} , it indicates that someone answers to questions consistently or stable over time. Thus, the six variables to measure the utilization of IT have effect on the lecturers' performance at POLSRI and this is reliable and feasible for research.

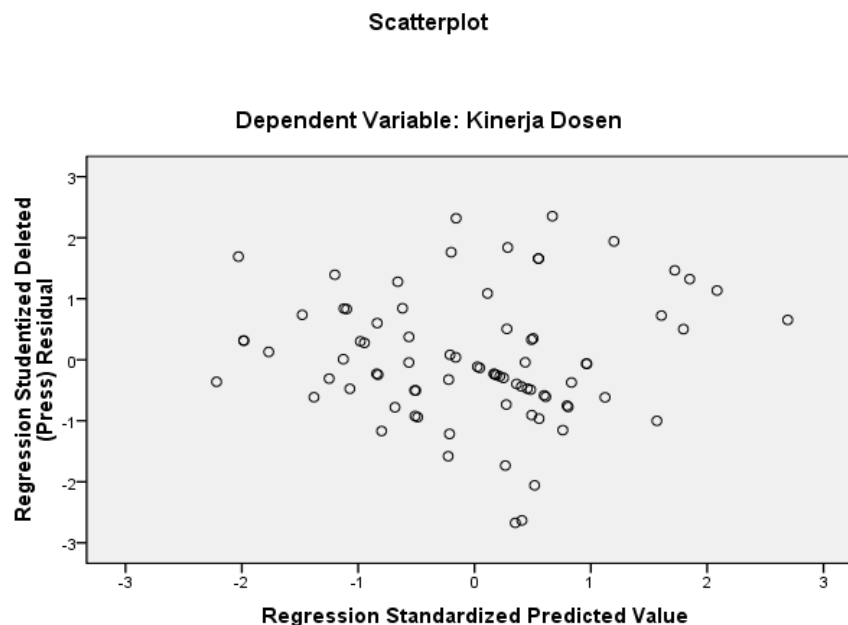
Normal PP Plot is based on the output distribution of the data which indicates that they are spread evenly the entire diagonal axis of the graph. In the graph, dots spread around the diagonal line and it's spreading in the direction of diagonal line. Decision-making, if the data is spread across around the diagonal line and follow the direction of the diagonal line, then the regression model

Table 8
Results of Multicollinierity Test

	Model	Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Social factors	.667	1.499
	Affect	.530	1.886
	complexity	.797	1.255
	Job/Task appropriateness	.663	1.508
	Long-term conseq.	.700	1.428
	Facilitating cond.	.903	1.108

Source: Processed result of data, 2010.

Figure 4
Test Result Graph of Heterocedastisity



meets the assumptions of normality. Thus, the appropriate regression model is used for performance prediction based on the input of independent variables that are lecturers.

The Multicollinearity Test as shown in Table 8 shows that the coefficient of the results for the six variables of VIF does not exceed 10, so the conclusion does not show the multicollinear. Thus, the appropriate regression model used for prediction of the lecturers' performance is based on the independent variable input.

In Figure 4, the dots spread randomly, but do not form a clear pattern, and they are

scattered both above and below the 0 on the Y axis. Thus, it means it did not make Heterocedastisity in the regression model so that appropriate regression model is used for performance prediction based on the independent variable input.

Model Summary

After testing the classical assumptions, the results did not reveal any independent variable resistor so that it cannot predict the dependent variable. For further regression analysis, it can be performed, the results of the analysis is as shown in Table 9.

Table 9
Results of Regression

	Mean	Std. Deviation	N
Lecturers' performance	28.2278	3.09238	79
Social factors	25.6076	2.78925	79
<i>Affect</i>	24.4304	3.39186	79
complexity	16.2658	3.90171	79
Job/task appropriateness	17.0253	2.11208	79
Long-term conseq.	27.0253	3.12957	79
Facilitating cond.	35.5823	4.73830	79

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.645 ^a	.416	.367	2.45961

Source: Results of Operations (2010)

Table 10
Result of ANOVA Test (F Test)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	310.323	6	51.720	8.549	.000 ^a
	Residual	435.576	72	6.050		
	Total	745.899	78			

The magnitude of coefficient of determination is 0.416 or equal to 41.6%. The figure of 41.6% means that performance can be explained by using the variables social factors, affect, complexity, job/ task appropriateness, facilitating conditions, and long-term consequences. The remaining 58.4% is to be explained by other causes. The magnitude of the standard error of the estimate (SEE) is 2.45961 (for lecturers' performance). If the figure compared with the standard deviation is 3.09238, then the number is smaller SEE. This means that figures to be a figure SEE good predictor in determining the score of lecturers' performance. A good score to be used as a predictor of dependent variable must be smaller than the number of standard deviations (SEE < STD).

Regression model can be used in predicting the dependent variable, the number of significance (sig) must be <0.05. The result of ANOVA F test as shown in Table 10 provides the value of 8.549 (> F_{table} , $F_{table} = 2.342$) with a significance level of 0.000, since the probabilities (Sig.) 0.000 < 0.05 and calculated F of $t > F_{table}$. Therefore, the re-

gression model is feasible for use in predicting the performance of lecturers.

Based on the results of processed data by SPSS as shown in Table 11, it is obtained that the regression equation as the following.

$$Y = 12.016 - 0.057X_1 - 0.138X_2 - 0.091X_3 - 0.012X_4 + .548X_5 + .223X_6$$

The constant value is 12.016. This figure is meaningful when there is no use of technology (social factors, affect, complexity, task appropriateness, long-term consequence, and facilitating conditions), than the lecturers performance of 12.016.

Regression coefficient for X_1 is - 0.057, there is a negative relationship between social factors and individual performance of POLSRI lecturers and this can reduce the performance such as into 0.057 or 5.7%. Yet, the t test to test the significance level of social factors and performance variables produces a significance of 0.642 or higher than 0.05, with calculated t at -0.466, where $-0.466 < 1.2926$ (t-table). Thus, the variable of social factors does not significantly affect the performance of teachers. Therefore, the hypothesis (H1) is rejected. These results

Table 11
Results of t-Test

	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.016	4.034		2.979	.004
	Social factors	-.057	.122	-.051	-.466	.642
	Affect	-.138	.113	-.151	-1.222	.226
	Complexity	-.091	.080	-.115	-1.140	.258
	Job/task Appropriateness	-.012	.162	-.008	-.074	.941
	Long-term conseq.	.548	.106	.554	5.151	.000
	Facilitating cond.	.223	.062	.341	3.600	.001

Source: Processed result of data, 2010.

indicate that the presence of sufficient support from superiors and fellow workers, will not improve the performance of lecturers in POLSRI. This is because the courses tend to use a computer, but they shall conduct studies and write scientific papers for a promotion.

The X_2 regression coefficient of $-.138$ indicates that there is a negative relationship between affect and individual performance; this can reduce the performance into 0.138 or 13.8% . On the contrary, the t test to test the significance level of social factors and performance variables have a significance of 0.226 is higher than 0.05 , the *calculated t* is less than -1.222 or t_{table} is equal to 1.2926 ($-1.222 < 1.2926$). Thus, the variable of social factors does not significantly affect the lecturers' performance. Therefore, the hypothesis H2 is rejected.

Affect or the individual feeling of the work has a negative relationship and no significance because the lecturers are indeed aware of the importance of the utilization of IT for implementing Tri Dharma (social services, research, and teaching) in the College. This is also expressed through their response in the questionnaire stating that IT at their college is really helpful and beneficial in supporting education process. It is also seen from the average use of computers by them every day.

The X_3 regression coefficient is of -0.091 . The negative sign indicates the com-

plexity of factors that degrade the performance of lecturers at 0.091 or 9.1% . Yet, the t test to test the significance level of social factors and performance variables has a significance of 0.258 or higher than 0.05 , calculated- t -1.140 , where $-1.140 < 1.2926$ (t -table). Thus, the complexity of the variables does not affect the individual performance. So, the hypothesis H3 is received. Thus, this study states that complexity acts as a construct that affect the utilization of IT. The more complex of IT is, the lower the utilization of IT is.

This condition is probably caused by the influence of poor skills and lack of adequate experience. If IT is said to be complex, they cannot utilize it for accomplishing their job. This leads to the complexity of IT and therefore affects the performance. This can be described that if the lecturer uses a complex IT, they cannot increase the utilization of IT for performing their duties. It is proved with the X_4 regression coefficient of -0.012 , the negative sign meaning that the appropriateness factors will degrade the performance of the job or task at the figure of 0.012 or 1.2% .

As for the t test of appropriateness and performance have a significance of 0.941 which is higher than 0.05 ($0.941 > 0.05$). For *calculated t* is of -0.74 where $-0.74 < 1.2926$ (t -table), and thus the appropriateness of the task does not significantly influence the performance. In this case, the hypothesis H4 is rejected. The existence of negative findings

means that the lecturers realized their job as their profession, which is a necessity to use IT.

The regression coefficient is of 0.548 X_5 showing that there is a positive relationship between long-term consequences and performance, in which the performance will be increased by 0.548 or 54.8%. But, the t test of the long-term consequences and performance has a significance of 0.000 or less than 0.05. The *calculated t* is of 5.151, where $5.151 > 1.2926$ (t -table), and thus long-term consequences influence and improve the performance at the college. Therefore, hypothesis H5 is accepted. It is significant and positive, meaning that the lecturers can increase the utilization of IT for their performance when driven by the belief that the use of IT provides a benefit or advantage in the future.

The regression coefficient is 0.223 (X_6) showing that facilitating conditions will improve the performance of 0.223 or 22.3%. The t test of facilitating conditions and the performance has a significance of 0.001 or less than 0.05. This shows that the calculated- t is 3.600, where $3.600 > 1.2926$ (t -table). Thus, the facilitating conditions influence and improve the performance of individual at the college. Thus, the hypothesis H6 is accepted. These results indicate that they need it for operational support facilities in the form of technical support. Increase in this factor in the workplace, the greater the individual's use of IT. This can also provide description based on the open question, that the development of IT at the Polytechnic Sriwijaya is now growing, very useful, and beneficial for the development of education.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

It can be generalized as the following. This study is in a structural model predicting the effect of social factors, affect, complexity, job/task appropriateness, long-term consequences, and facilitating conditions on the lecturers' performance at POLSRI. There is a positive and significant relationship be-

tween long-term consequences of factors and facilitating conditions against the performance of individuals. The more complex of IT in their perception is, the less utilization of IT for their job accomplishment is. This is consistent with the hypothesis made. Besides that, it can be stated here that if there is a higher level of technological innovation or the more complicated, the level adoption of these technologies will be even lower. Social factors, affect, and the task appropriateness have a negative relationship, and no significant effect on the performance.

The study is expected to contribute to both researchers and academicians. This can be taken into account in the future when they conduct research related to the utilization of IT in increasing the individual performance at their college. The research model is a model that focuses on the utilization factors of IT adopted from Thompson et al. (1991). To improve the lecturers' performance, it is necessary for them to have an understanding of the factors that influence the use of IT. The organizations can conduct training so that it can reduce the perceived difficulty in operating a computer so as to provide a positive influence on actual use. Complexity is also related to level of experience and learning process, whereby an individual can gain experience using the software package in different manner. By doing so, the lecturers' performance in the college can be increased too.

In overcoming the possibility of the respondents who might not respond to the questionnaire seriously and misperceptions of the statements in the questionnaire, further research can anticipate by combining the methods of survey through questionnaires and interviews.

POLSRI as an institution should facilitate the lecturers with IT so that it can keep up with technology and improve the quality of human resource. By doing so, they can keep abreast of the development of IT in their environment. However, such facility should also be related much with their job or task.

The use of survey methods by using this questionnaire has some disadvantages: some respondents might not answer the questionnaire seriously and difficulty to control. Thompson et al. (1991), using a floppy disk to determine the perceptions of respondents to fill out questionnaires at once, at the present, it is known whether or not the respondent uses a computer. Due to limited funds and time, the researchers did not use this method.

REFERENCES

- Achmad Suhaili, 2004, 'Analisis Faktor-Faktor yang Mempengaruhi Pemanfaatan Teknologi Informasi dan Pengaruhnya Terhadap Kinerja Manajerial pada Perusahaan Manufaktur di Kalimantan Selatan', Tesis S2 Akuntansi UNDIP.
- Anak Agung Sagung Rai Darmini, I Nyoman Wijana Asmara Putra, 2008, 'Pemanfaatan Teknologi Informasi Dan Pengaruhnya Pada Kinerja Individual Pada Bank Perkreditan Rakyat Di Kabupaten Tabanan', *Jurnal UNUD*, Universitas Udayana.
- Anol Bhattacharjee, Michael Harris, 2009, 'Individual Adaptation of Information Technology', *The Journal of Komputer Information Sistems*, Fall 2009.
- Astuti Handayani Siregar, I Ketut Suryanawa, 2008, 'Pemanfaatan Teknologi Informasi Dan Pengaruhnya Terhadap Kinerja Individual Pada Kantor Pelayanan Pajak Pratama Denpasar Barat', *Jurnal UNUD*, Universitas Udayana.
- Cecilia Engko, 2006, 'Pengaruh Kepuasan Kerja Terhadap Kinerja Individual Dengan Self Esteem Dan Self Efficacy Sebagai Variabel Intervening', *Symposium Nasional Akuntansi 9 Padang*.
- Davis, Fred, Bagozzi P Richard and Wershaw R Paul, 1989, 'User Acceptance of Komputer Technology: A Comparison of Two Theoretical Models', *Management Science*. P. 982-1003.
- Drs Saifudin Azwar, MA 1997, *Sikap Manusia, Teori dan Pengukurannya*. Edisi ke 2. Penerbit Pustaka Pelajar.
- Fung Tjhai Jin, 2003, 'Analisis Faktor-Faktor Yang Mempengaruhi Pemanfaatan Teknologi Informasi Dan Pengaruh Pemanfaatan Teknologi Informasi Terhadap Kinerja Akuntan Publik', Tesis S2 UGM.
- Gujarati N, Damodar, 2003, *Basic Econometrics, Fourth Edition*, New York, Mc Graw Hill.
- Goodhue, Dale L and Thompson, Ronald L 1995, 'Task-Technology Fit and Individual Performance', *MIS Quarterly*. June, p.6-15.
- Husein Umar, 2001, *Riset Pemasaran dan Perilaku Konsumen*, Gramedia Pustaka Utama.
- James A O'Brien, 2008, *Introduction to Information Systems*, 12th Edition, McGraw Hill.
- Rakhmi Ridhawati, 2007, 'Anteseden dan Konsekuensi Pemanfaatan Teknologi Informasi Terhadap Kinerja Dosen Perguruan Tinggi Swasta (PTS) di Indonesia', Tesis S2 FE UGM.
- Thompson L, Ronald, Higgins A, Christopher and Howell M, Jane, 1991, 'Personal Computing: Toward a Conceptual Model of Utilization', *MIS Quarterly*, March, P. 125-143.
- Thompson L, Ronald, Higgins A, Christopher and Howell M, Jane, 1994, 'Influence Of Experience On Personal Computer Utilization: Testing A Conceptual Model', *Journal of Management Information System*.
- Triandis, HC, 1980, *Values, Attitude, and Interpersonal Behavior*, University of Nebraska Press, Lincoln, NE.p.195-259.